SR 303L is a planned new freeway in the western portion of the Greater Phoenix Metropolitan Area. The Regional Transportation Plan (RTP) that was adopted by the Maricopa Association of Governments (MAG) in November 2003 includes funding for design, right-of-way, and construction of SR 303L from near MC 85 to I-17, a distance of approximately 40 miles. It also includes some funding for right-of-way preservation for the southward extension of SR 303L to Riggs Road. This design concept report (DCR) was prepared for the 15-mile portion of this planned freeway from I-10 to US 60.

This design concept was primarily prepared for Maricopa County Department of Transportation (MCDOT) in consultation with the Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA). The cities of Goodyear, Glendale, and Surprise were major stakeholders in the process along with the Flood Control District of Maricopa County (FCDMC), Luke Air Force Base, and MAG. With the passage of Proposition 400 in November 2004, ADOT resumed full responsibility for SR 303L in July 2006 and is responsible for design, construction, maintenance, and operation of the new freeway.

An Environmental Assessment (EA) has been prepared in concert with this DCR. A series of public meetings have been held throughout the process to obtain input and to inform the public of the evolving plans for the freeway. ADOT is responsible for the public hearings, final DCR, and final EA.

# **Summary of the Design Concept**

The basic recommended configuration for the planned freeway is illustrated in Figure ES-1. The project extends approximately 16.5 miles from Van Buren Street on the south to north of US 60 (Grand Avenue) on the north. A major system interchange is planned at I-10, and other major interchanges are planned at the Northern Parkway (between Northern and Olive avenues) and at US 60. Service interchanges are planned at arterials that cross the SR 303L corridor including: Thomas Road, Indian School Road, Camelback Road, Bethany Home Road, Glendale Avenue, Northern Avenue-Olive Avenue (split half diamonds connected by frontage roads), Peoria Avenue, Cactus Road, Waddell Road, Greenway Road, and Bell Road.

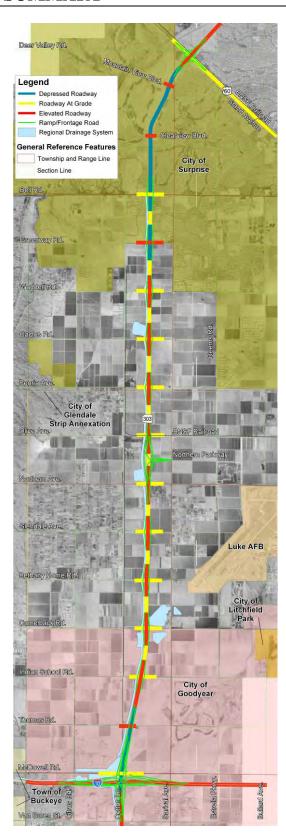


Figure ES-1 Recommended Configuration

For the most part, SR 303 will be constructed near ground level but will be elevated over all the cross streets from Indian School Road to Waddell Road. The freeway is planned to be below ground level through the I-10 interchange, at McDowell Road and Thomas Road and again beginning south of Greenway Road to south of US 60. The southbound bridge over US 60 (Grand Avenue) and the Burlington Northern Santa Fe Railroad (BNSF) has already been constructed and is currently used for two-way traffic for the interim roadway. A parallel northbound bridge is planned as part of the freeway construction.

SR 303L is planned to ultimately have four general purpose lanes and one HOV lane in each direction. Auxiliary lanes are planned between service interchanges and leading into and away from the three major interchanges. The MAG RTP funding program includes three general purpose lanes in each direction for SR 303L. The plans are to construct the ultimate outside lanes with the initial construction and leave room in the median to add two more lanes in each direction at a future date.

A major storm water channel along the west side of SR 303L and a series of detention basins are planned as part of the freeway project. This system was planned by the FCDMC and incorporated into the plans for the freeway. It would extend from Bell Road to the Gila River south of the project limits. The system would protect the roadway from storm water and would be a part of the overall flood control system for the area east of the White Tank Mountains. The FCDMC is expected to be a financial partner in the construction of the drainage system along the freeway.

#### **I-10 System Interchange**

The project begins at Van Buren Street south of I-10 in order to include the full SR 303L/I-10 system interchange. This interchange is planned to be the largest in the state and would consist of five levels (one below ground level, one at ground level, and three levels above ground. The interchange is made more complex because of the need to include frontage roads in both the north-south and east-west directions to provide needed local access and because of the presence of the Roosevelt Irrigation Canal that passes diagonally through the interchange area. A graphic of the interchange is shown in Figure ES-2.

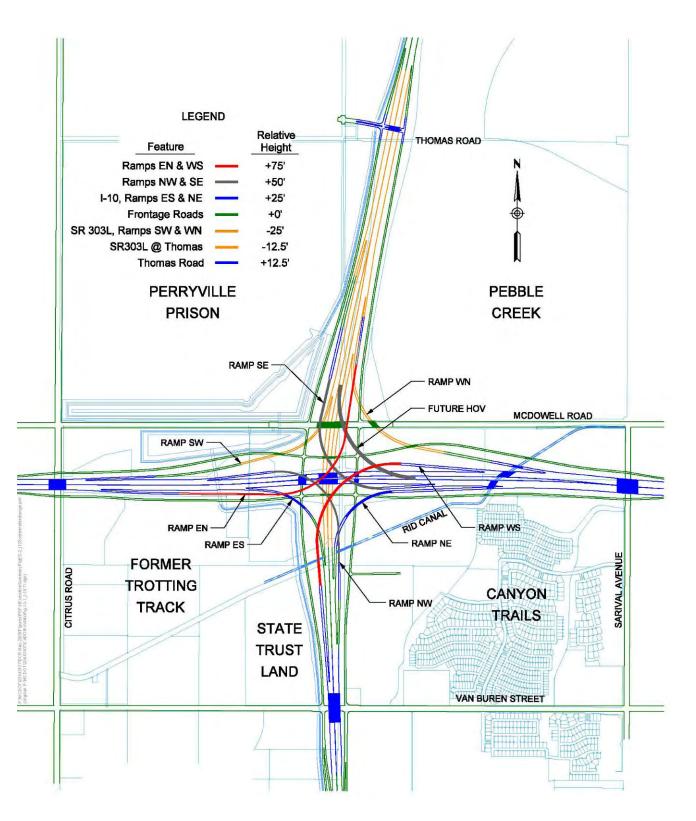


Figure ES-2 I-10/SR 303L System Interchange

As a separate project, I-10 is planned to be widened from the current two lanes in each direction ultimately to six lanes in each direction. The widening of I-10 needs to occur prior to or concurrent with the construction of the SR 303L system interchange. To accommodate the system interchange and to avoid encroachment on existing residential neighborhoods adjacent to the southern right-of-way line of I-10, I-10 is proposed to be realigned to the north by as much as 260 feet.

The ramps between SR 303L and I-10 to and from the east are planned to be two lanes each. The ramps to and from the west are currently planned to be one lane each. Half-diamond interchanges are planned on the south side of Van Buren Street and on the north side of Thomas Road. One-way frontage roads on each side of SR 303L would link these half-diamond interchanges and provide a connection to McDowell Road. Similarly, half-diamond interchanges are planned on the east side of Sarival Road and on the west side of Citrus Road. One-way frontage roads on each side of I-10 would link these two half-diamond interchanges and provide connections to the north-south frontage roads.

#### **Northern Parkway Interchange**

The Northern Parkway is a planned new roadway to be located midway between Olive and Northern avenues and extend from SR 303L eastward. A directional interchange is planned at SR 303L that would not provide for extension of the parkway west of SR 303L. A half-diamond interchange is planned on the south side of Northern Avenue with frontage roads connecting to Olive and Peoria avenues. Refer to Figure ES-3.

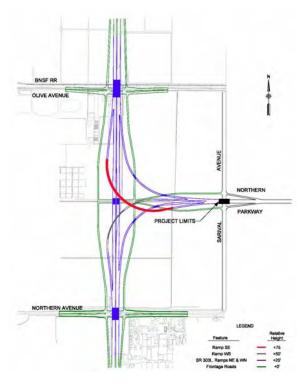


Figure ES-3 Northern Parkway/ SR 303L System Interchange

The Northern Parkway is included in the MAG RTP as a locally sponsored project so that it is eligible for funds from the one-half-cent sales tax with 30 percent local match. The responsibility for funding for the interchange with SR 303L has not been determined.

# **US 60 (Grand Avenue) Interchange**

US 60 is an existing four-lane major arterial with limited access. It is planned to be widened to six lanes in the future. Due to the limited arterial street system in the area, US 60 is expected to carry greater traffic volumes than most arterials. US 60 also serves as the continuation of US 93 which provides an interstate linkage to I-40 and to I-15 in Las Vegas. Truck traffic on US 60 is expected to be higher than on typical arterials. As a result, a special interchange configuration was developed for SR 303L and US 60.

MCDOT constructed for the interim SR 303L a bridge over US 60 and the BNSF railroad. This new bridge currently carries two-way traffic. In the future, it will carry southbound traffic for SR 303L. A parallel bridge is planned to serve the northbound lanes of SR 303L. US 60 and the railroad are planned to remain in their current locations. BNSF has a single track in 200 feet of right-of-way. BNSF allowed MCDOT to construct a bridge pier in their right-of-way but required that space be retained to allow future construction of two parallel tracks.

The interchange configuration recommended at US 60 has the ramps placed below ground level to form a three-level interchange. Refer to Figure ES-4. Both SR 303 and US 60 would provide uninterrupted traffic flow through the interchange. The ramps would be curved similar to a single point urban interchange (SPUI) to provide large turning radii to accommodate trucks and higher traffic volumes. The pairs of ramps would intersect below a bridge to be constructed for US 60.

A two-phase signal would be constructed at the ramp intersection. This intersection would have significantly greater capacity to accommodate traffic than a typical two-level SPUI because the traffic signal would only accommodate ramp traffic; Grand Avenue traffic would be free flow on a separate level.

As planning for the ultimate development of the area north and west of SR 303 and US 60, major new roads are envisioned. These new roads may have interchanges on SR 303 or US 60 in relatively close proximity to the proposed SR 303/US 60 TI. As a result, the proposed configuration may have to be revised through future engineering studies.

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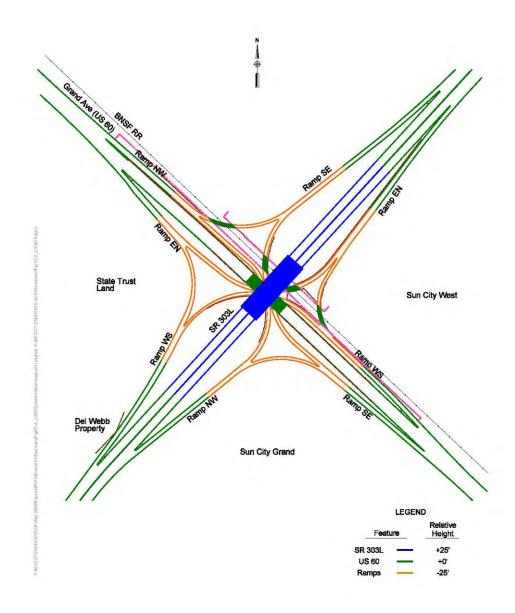


Figure ES-4 US 60/SR 303L Interchange

### **Project Costs and Funding**

Preliminary cost estimates have been made for the project and broken down into project elements. The following table summarizes these estimates.

**Cost Estimate Summary (in millions 2007 dollars)** 

	Construction	Design	Right-of-Way	Total
SR 303L I-10 to US 60 <sup>a</sup>	\$985	\$79	\$219	\$1,283
I-10 Widening/Realign <sup>b</sup>	124	10	62	196
I-10/SR 303 Phase II <sup>c</sup>	103	8	0	111
Total SR 303 and I-10	\$1,212	\$97	\$281	\$1,590

<sup>&</sup>lt;sup>a</sup> Includes north half of I-10 TI, frontage roads to Van Buren, and regional drainage system to Van Buren; SR 303L is six lanes. The entire US 60 and Northern Parkway TIs are included.

The cost of construction of SR 303L as a six-lane freeway from I-10 to US 60 is estimated to be \$985 million. This cost includes the north half of the I-10 interchange, the Northern Parkway interchange, and all of the US 60 interchange. The cost also includes the storm water channel and detention basins. Right-of-way is estimated to cost an additional \$219 million.

SR 303L is included in the MAG RTP and is eligible for funding from the extension of the one-half-cent sales tax for transportation in Maricopa County as approved by the voters in November 2004. The funds allocated through this program for SR 303L are provided in the table below.

Section of SR 303L	Phase I 2006-2010	Phase II 2011-2015	Phase III 2016-2020	Phase IV 2021-2026	Total
MC 85 to I-10		\$10	\$220		\$230
I-10 to US 60	\$50	\$495			\$545
US 60 to I-17	\$250	\$395			\$645
Total	\$300	\$900	\$220		\$1,420

Note: Dollar amounts in millions of 2002 dollars.

The majority of the funding for I-10 to US 60 is in Phase II (2011 to 2015) of the MAG RTP. The funding allocated for the portion from I-10 to US 60 is \$545 million, but this figure has not been updated to current dollars. Even after updating, the funding is expected to be less than the cost. Additional funding may come from federal highway funds, other state highway funds, and contributions from the FCDMC for the storm water channel and detention basins. The cost of the US 60 interchange is wholly included in the estimate presented above but at least half of the funding could come from the US 60 to I-17 portion of SR 303L. The funding source for the Northern Parkway interchange has not been specifically allocated at this time between SR 303L and the Parkway project.

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<sup>&</sup>lt;sup>b</sup> 5+1 lanes each direction Citrus Road to Sarival.

<sup>&</sup>lt;sup>c</sup> Includes south half of I-10 TI and SR 303L Van Buren to north of McDowell.

**Phasing of Construction** 

A preliminary plan for phased construction was developed. Significant changes may be made as cash-flow plans are refined and specific needs in the corridor become more apparent. In general, the current plan is to

construct SR 303L from north to south. The section from Bell Road to US 60 would be constructed as a

four-lane divided roadway and the interchange with US 60 would be improved to accommodate traffic for

several more years. Construction of the initial six-lane freeway would begin at Bell Road and proceed

southward in increments that fit funding availability. The storm water system would need to be constructed

to Camelback Road where major detention basins are planned. The plan to use these basins as the interim

terminus of the system needs to be developed further in conjunction with the FCDMC.

Once the freeway construction reaches Camelback Road, construction of the storm water system from that

point to the Gila River would be needed concurrent with continuation of freeway construction south of

Camelback Road. The north half of the I-10 interchange would be built with the I-10 widening. Both

projects are scheduled for Phase II of the MAG RTP.

**Interim Roadway** 

In 1991 and 1992, ADOT constructed a two-lane interim roadway along the SR 303L alignment from Indian

School Road to US 60. Right-of-way dedications were obtained and control of access was established. In

1998, through agreement with ADOT, MCDOT took over the responsibility for maintaining and operating

this interim roadway and for planning, designing, and constructing improvements and extensions to the

roadway. MCDOT completed a new four-lane divided section from Indian School Road to McDowell Road,

constructed the Patriots Bridge for SR 303L over US 60 and BNSF railroad, reconstructed the roadway from north of Bell Road to south of US 60, constructed a four-lane divided highway from US 60 to Happy Valley

Parkway, and improved several intersections along the original two-lane roadway including installation of

traffic signals. ADOT resumed full responsibility for the route in July 2006.

Earlier in this DCR process, alternatives were developed and evaluated for interim improvements to the existing roadway. Interim A alternative would construct portions of the ultimate roadway and utilize

portions of the existing two-lane roadway for one-way traffic. The result would be a four-lane divided

highway with at-grade intersections to serve traffic until the freeway can be constructed. Much of this new

construction would be part of the ultimate freeway.

Interim B alternative would cost less initially but would be completely removed with the freeway

construction. This alternative would widen the existing roadway to provide four undivided lanes and turn

lanes at signalized intersections.

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freeway now planned to be elevated over all cross streets from Indian School road to Waddell Road, interim at-grade construction of the freeway is no longer practical. With the funding provided through

The recent change in plans for the SR 303L effectively eliminates Interim A as a viable strategy. With the

Proposition 400, approved by the voters in November 2004, ADOT plans to build a six-lane freeway as the

initial construction.

**Environmental Process** 

An Environmental Assessment (EA) was prepared in conjunction with this study to determine which aspects of the proposed project have potential for social, economic, and environmental impacts and to identify

measures that will mitigate adverse impacts. A detailed analysis of the social, economic, and environmental

conditions and impacts is presented in the EA.

The EA follows FHWA National Environmental Policy Act (NEPA) and ADOT guidelines. The document

includes an evaluation of potential impacts to: land use, minority and environmental justice issues, social and economic issues, potential to encounter hazardous materials, air quality, noise, visual quality, water

resources, biological resources, and cultural resources. Due to the established SR 303L interim roadway,

relatively moderate existing development, and general lack of natural resources in the corridor; the degree of

environmental impacts is moderate and the opportunity to reasonably mitigate exists. Areas of attention that

would require project specific mitigation include noise abatement for existing residential areas.

Several "standard" project mitigation measures will be utilized in the development of the SR 303L improve-

ments including: coordination with local businesses for construction access, freeway and interchange

landscaping, preparation of a Storm Water Pollution Prevention Plan, construction dust control plan, salvage native protected plants as appropriate, and a detailed traffic control plan to minimize traffic impacts during

construction.

**Public and Agency Involvement** 

The project has been conducted in four separate phases. Phase 1 from April 2001 until May 2002 produced

an Initial DCR dated April 24, 2002, and preliminary draft EA. This Initial DCR covered SR 303L from

Indian School Road to Clearview Boulevard. Phase 2 began in April 2003 and extended to June 2004. A

second draft Initial DCR dated May 26, 2004, was produced to update the concept and extend the project to include the I-10 and US 60 interchanges and also includes the Northern Parkway interchange. The third

phase began in December 2004 and a review draft was prepared in February 2006. The fourth phase began in 2007 with ADOT taking over full responsibility for preparation of the EA, the DCR, and conduct of the

public hearings.

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Public meetings have been held throughout the study process as follows:

- June 19, 2001, Public Scoping Meeting, Dysart High School, El Mirage
- November 6, 2001, Public Information Meeting, Dysart Elementary School, El Mirage
- May 17, 2004, Public Information Meeting, Millennium High School, Goodyear
- May 19, 2004, Public Information Meeting, Willow Canyon High School, Surprise

A public hearing is scheduled to be held in the summer of 2008 when the Draft EA and Draft DCR are available to the public.

Federal, state, and local agencies have been involved throughout the process. Other major governmental or private utilities have also been involved from the initial agency scoping meeting held May 24, 2001, at the Surprise City Hall. Project stakeholder meetings were held at least once every three months during the active portion of each phase of the project.